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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,875	01/23/2004	Mark Horton	018360/269788	6010

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EXAMINER	
SAMS, MATTHEW C	
ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/763,875	HORTON ET AL.	
	Examiner	Art Unit	
	MATTHEW SAMS	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-21 and 23-29* is/are rejected.

7)☒ Claim(s) *5 and 22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/30/2009 has been entered.

Information Disclosure Statement

2. The information disclosure statement filed on 10/30/2009 has been accepted.

Response to Arguments

3. Applicant's arguments filed 10/30/2009 have been fully considered but they are not persuasive for all of the claims.

4. In response to the Applicant's argument regarding claim 1 that the references fail to disclose "time parameter" and "geographic parameter" (Pages 10-11), the Examiner respectfully disagrees.

While it is true that Rickli states that "connections are established in a fixed time frame", that "the exact location of the test unit at a particular point in time is a random factor", that "the connections may also be established on a preprogrammed basis at specified locations" and that the "point in time at which this is done will then be more or

less random" but, Rickli also states that the specified location and point in time "may be an interesting measured value". Therefore, the Examiner believes that Rickli teaches that both the location and time of the testing are important considerations when determining which vehicle should be used as the testing vehicle. (Col. 5 lines 14-29 and Col. 7 lines 21-44) Rickli does not speak in "absolutes", "required to" or "has to" when considering the "random factor", which is what the Examiner would consider the language required to view Rickli's teachings as "teaching away" from using both a time and geographic parameter when determining the route.

With respect to Somoza, Somoza states that the "drive test route selection is based on the proximity of a street to an antenna at a cellsite and may take into account possible architectural clutter interference and potential high traffic areas within the cell", which the Examiner views as a high traffic area occurring at only specific times during the day (*i.e.* rush hour, business hours, lunch hours, first hour of non-peak minute cost time, etc.).

5. In response to the Applicant's argument regarding claim 4 that the references fail to disclose "one or more intermediate stop durations" (Pages 12-13), the Examiner respectfully disagrees.

The Examiner is inclined to agree with the Applicant's interpretation of Somoza, however the previously cited portions of Rickli cite "courier services" and "refuse disposal trucks". (Col. 5 lines 27-31) While Rickli doesn't explicitly recite "one or more intermediate stop durations", it is obvious to one of ordinary skill in the art that both of the courier vehicle and the garbage truck are required to stop at specific locations to

drop off packages/mail or to pick up trash. Further, it is obvious to one of ordinary skill in the art that an estimate of how long each stop will take is predetermined/estimated because the drivers/workers are scheduled for a specific amount of hours per day and can only carry so many packages/trash. Therefore, it is well within the scope of one of ordinary skill to recognize that a courier service and refuse disposal truck each have a specific start time, a specific end time and that each day, the route will have specific stops with an estimated time at each stop. This is necessary in order to correctly divide and schedule the work between the employees and to avoid paying unscheduled overtime (because a select few employees had more work than can be done in a normal day) or in the case of a salaried employee, not utilizing the worker for the full amount of time an employee is scheduled to work.

6. In response to the Applicant's argument that Rickli, Somoza and Salmela do not disclose or suggest the concept added by dependent claim 8 (Page 14), the Examiner respectfully disagrees.

Rickli teaches the weighting concept for testing parameters in Col. 7 lines 21-44 by discussing the changing of the testing procedure based on the statistical analysis of the results. (*i.e.* increasing the amount of testing in a specific place at a specific time in order to determine the cause of excessively differing measurements)

7. In response to the Applicant's argument regarding claim 29, it is noted that claim 29 is not a new claim (and is properly identified in the claims) but is errantly referred to as being new in the arguments.

8. Please note the new rejection for claims 11-17.

9. Applicant's other arguments rely upon the same merits as addresses above and are maintained in view of the further explanation above.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1-4, 6, 8-21, 23 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rickli et al. (US-5,481,588 hereinafter, Rickli) in view of Somoza et al. (US-6,336,035 hereinafter, Somoza) and Salmela (US-5,805,996).

Regarding claim 1, Rickli teaches a method of testing electromagnetic signal strength near a target area (Col. 2 lines 17-20 *i.e.* testing the field strength in a particular cover area), comprising:

establishing test parameters including a time parameter or a geographic parameter; (Col. 1 line 51 through Col. 2 line 2, Col. 2 lines 17-19, 40-59, Col. 5 line 44-51 and Col. 7 lines 21-44)

operating a fleet of vehicles serving a territory near said target area (Col. 2 lines 60-67 and Col. 5 lines 23-31 "courier services", "taxis" & "Refuse disposal trucks"), each of said vehicles being assigned to one of a plurality of routes according to a dispatch plan that is configured for purposes other than electromagnetic signal testing (Col. 2 lines 60-67, Col. 3 lines 51-55, Col. 4 lines 60-66 and Col. 5 lines 23-31 "courier

services", "taxis" & "Refuse disposal trucks), said dispatch plan comprising vehicle data and route data; (Col. 3 lines 45-55, Col. 4 lines 60-66 and Col. 5 lines 18-31)

installing one of a plurality of electromagnetic signal testing units in a plurality of vehicles; (Abstract and Col. 2 line 61 test unit 16 mounted on vehicle)

gathering electromagnetic signal data using said electromagnetic signal testing units installed in said one or more vehicles while operating said one or more vehicles according to said dispatch plan; (Col. 4 line 60 through Col. 5 line 31) and

receiving data gathered by each of said plurality of signal testing units. (Col. 2 lines 25-29 and Col. 3 lines 34-39)

Rickli differs from the claimed invention by not explicitly reciting comparing said test parameters to said dispatch plan for each of said plurality of routes, identifying one or more optimal routes from among said plurality of routes based on the results of said comparing, said optimal routes comprises those most nearly satisfying said test parameters, with one or more of the vehicles assigned to one each of said one or more optimal routes.

In an analogous art, Somoza teaches a method and system for wireless network planning (Abstract) including

establishing test parameters; (Col. 8 lines 34-35, 47-50 and lines 62-66 "planned RF coverage data")

comparing said test parameters to said dispatch plan for each of said plurality of routes, (Col. 8 line 62 through Col. 9 line 9 4 *i.e.* completed by the software tool, the

"test parameters" is analogous to the "planned RF coverage" and the dispatch plan is the "street map data" Fig. 6 [620] and Fig. 2 [220])

identifying one or more optimal routes from among said plurality of routes based on the results of said comparing, said optimal routes comprises those most nearly satisfying said test parameters, (Fig. 2 [220], Fig. 6 [620], Col. 8 lines 1-6, Fig. 6 and Col. 8 line 58 through Col. 9 line 12)

with one or more of the vehicles assigned to one each of said one or more optimal routes. (Col. 8 lines 37-57 and Col. 9 lines 1-27)

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to be motivated to implement the method for drive testing a base station through the use of vehicles operated by courier services and garbage trucks of Rickli after modifying it to incorporate the selection of the optimal drive testing routes for a base station of Somoza since Somoza enables software simulation for determining not only the optimal base station deployment locations prior to actually installing the base stations but also for determining the optimal drive test route based on the roads available. (Somoza Col. 7 line 67 through Col. 8 line 19 and Col. 8 line 67 through Col. 9 line 12) Therefore, it is obvious to one of ordinary skill in the art to recognize the software within Somoza can be used to select the optimal vehicles within the fleet of Rickli for installing the drive testing equipment based on vehicles' expected daily routes. (Rickli Col. 5 lines 27-31 and Somoza Col. 8 line 67 through Col. 9 line 12)

Rickli in view of Somoza differs from the claimed invention by not explicitly that the test parameters includes a time parameter and a geographic parameter, wherein the time parameter comprises a time-of-day testing window.

In an analogous art, Salmela teaches that it is well known in cellular radio systems (Fig. 1), at specific locations during certain times of the day, the demand for traffic capacity can become very high as compared to other times during the day. (Col. 1 lines 31-40 *i.e.* rush hours near highways or in cities during the work day) Therefore, it is well within the skill of one of ordinary skill in the art to recognize that in order to thoroughly test a cellular network using the method described by Rickli in view of Somoza, the testing should be completed during different times of the day. (*i.e.* peak hours and non-peak hours) One of ordinary skill in the art would have been motivated to do this in order to get an accurate picture of the true stress being leveled upon the network throughout the day. (Salmela Col. 1 line 25 through Col. 2 line 6)

Regarding claim 2, Rickli in view of Somoza and Salmela teaches said route data includes a start location, an end location, and one or more intermediate stop locations. (Rickli Col. 3 lines 25-45, Somoza Col. 8 line 58 through Col. 9 line 12 and Fig. 5)

Regarding claim 3, Rickli in view of Somoza and Salmela teaches said geographic parameter further comprises:

one or more tower identifiers, each defining a tower location, (Somoza Col. 9 lines 4-7 and Fig. 5 & 7) and

one or more sector identifiers, each of said one or more sector identifiers comprising a sector location and an antenna configuration. (Rickli Fig. 1, Somoza Fig. 5 and 7)

Regarding claim 4, Rickli in view of Somoza and Salmela teaches wherein said route data includes a start time corresponding to said start location, an end time corresponding to said end location, and one or more intermediate stop durations corresponding to said one or more intermediate stop locations. (Somoza Fig. 5 and Col. 8 lines 34-35)

Regarding claim 6, Rickli in view of Somoza and Salmela teaches wherein said step of establishing test parameters further comprise:

one or more unit parameters, each of said one or more unit parameters comprising a unit type and a unit feature; and

a quantity parameter defining an available number of said units;

and wherein said vehicle data includes a number of vehicles in said fleet. (Rickli Col. 5 lines 22-30, 44-51 and Col. 7 lines 48-55)

Regarding claim 8, Rickli in view of Somoza and Salmela teaches wherein said step of establishing test parameters further comprises:

assigning a weight to one or more of said test parameters, each of said weights correlated to the importance of said one or more of said test parameters relative to the other test parameters. (Rickli Col. 2 lines 44-48, Col. 3 lines 33-36, Col. 4 lines 60-65 and Col. 7 lines 21-44)

Regarding claim 9, Rickli in view of Somoza and Salmela teaches wherein said step of comparing said test parameters to said dispatch plan is executed by a computer software program product. (Somoza Col. 8 lines 1-6)

Regarding claim 10, Rickli in view of Somoza and Salmela teaches wherein said step of establishing said test parameters is accomplished by a wireless provider, said wireless provider being generally unrelated to said service enterprise. (Somoza Col. 7 lines 64 through Col. 8 line 52)

Regarding claims 11-17, while the "computer software program product" is statutory because it comprises "at least one computer-readable storage medium having computer-readable program code portions stored therein", the claim is lacking a processor, controller or similar component to breathe life into the claim. Although the code has executable portions, there is not a component claimed that is executing the code (*i.e.* breathing life). Therefore, the executable portions are viewed as being non-functional descriptive language which carries no patentable weight. Further, Rickli in view of Somoza and Salmela teaches a computer software program product. (Rickli Fig. 2 [25 & 27] and Somoza Fig. 1 [120 & 140])

Regarding claim 18, the limitations of claim 18 are rejected as being the same reason set forth above in claim 1.

Regarding claim 19, the limitations of claim 19 are rejected as being the same reason set forth above in claim 2.

Regarding claim 20, the limitations of claim 20 are rejected as being the same reason set forth above in claim 3.

Regarding claim 21, the limitations of claim 21 are rejected as being the same reason set forth above in claim 4.

Regarding claim 23, the limitations of claim 23 are rejected as being the same reason set forth above in claim 6.

Regarding claim 25, the limitations of claim 25 are rejected as being the same reason set forth above in claim 8.

Regarding claim 26, the limitations of claim 26 are rejected as being the same reason set forth above in claim 9.

Regarding claim 27, the limitations of claim 27 are rejected as being the same reason set forth above in claim 9.

Regarding claim 28, the limitations of claim 28 are rejected as being the same reason set forth above in claim 10.

Regarding claim 29, the limitations of claim 29 are rejected as being the same reason set forth above in claim 1.

12. Claims 7 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Rickli in view of Somoza and Salmela as applied to claims 1 and 18 above, and further in view of Jones (US-5,752,164).

Regarding claims 7 and 24, Rickli in view of Somoza and Salmela teaches the method and system of claims 1 and 18, but differs from the claimed invention by not explicitly reciting providing a universal bracket in each vehicle in said fleet, said bracket being configured to releasably receive any of a variety of types of said testing units.

In an analogous art, Jones teaches a universal bracket in each vehicle in said fleet, said bracket being configured to releasably receive any of a variety of types of said testing units. (Col. 7 lines 26-40) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the system and method of drive testing RF signals from a base station of Rickli in view of Somoza and Salmela after modifying it to incorporate a universal mounting bracket of Jones. One of ordinary skill in the art would have been motivated to do this since having a universal mounting bracket allows a contractor to easily drive test different devices within a cell, saving time and money.

Allowable Subject Matter

13. Claims 5 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter:

While Rickli states that courier services, taxis and refuse disposal trucks are suitable vehicles to be used for testing a mobile service because of the totality of the testing area that is driven by the vehicles (Col. 5 lines 27-31), Rickli in view of Somoza and Salmela do not consider a lingering parameter of the routes to be traveled by in the dispatch plan for the potential testing vehicle in order to determine which vehicle is the

optimal vehicle for testing the desired target area, when taken in combination with the limitations of claims 1, 2 and 4 for claim 5 and claims 18 and 21 for claim 22.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW SAMS whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MATTHEW SAMS/
Examiner, Art Unit 2617